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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/524,217

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Boris Adam

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EXAMINER

SUGLO, JANET L

ART UNIT

PAPER NUMBER

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MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/524,217	Applicant(s) ADAM ET AL.	
	Examiner JANET L. SUGLO	Art Unit 2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 17, 2008 has been entered.

Response to Amendment

2. The action is responsive to the Amendment filed on September 17, 2008. Claims 6-10 are pending. Claims 1-5 have been cancelled. Claims 6 and 7 have been amended.

Drawings

3. The drawings are objected to because descriptions written inside boxes are handwritten and difficult to read. Please type descriptions inside boxes. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be

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canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency.

Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. **Claim 7** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Amendments to claim 7 filed September 17, 2008 include "an engine injection system" and "an exhaust injection system" however neither system is described in the specification. The specification states on page 3, lines 12-13, "Vehicle system 6 is an injection system," and on page 2, lines 1-2, "It is particularly

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advantageous if the at least one additional vehicle system is an injection system.”

These are the only two instances of the word injection in the specification and neither specifies that the injection system is either an engine injection system or an exhaust injection system. Exhaust is never mentioned in the specification and engine is only mentioned on page 2, lines 25-27, which states “In the automobile, the sensors are usually utilized for controlling the engine and for sensing side crashes and triggering an airbag.”

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 6, 9, and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Zumpano (US Patent 6,513,829) in view of Dirmeyer et al. (US Patent 5,748,075) (hereinafter Dirmeyer).

With respect to **claim 6**, Zumpano teaches a device for impact sensing (Zumpano: col 10, ln 52-67), comprising:

a processor (Zumpano: col 10, ln 63-65); and

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at least two pressure sensors each detecting an impact to a vehicle based on pressure, wherein the at least two pressure sensors connectable to the processor to communicate at least one pressure value each to the processor, the processor being configured to perform an impact sensing based on the at least one pressure value (Zumpano: Figure 1; col 5, ln 46-55; col 10, ln 52-67);

wherein the processor is connectable to at least one restraining system (Zumpano: Figures 14 and 29, col 16, ln 35-55)

wherein the processor is connected to at least one vehicle system besides said at least two pressure sensors and said at least one restraining system (Zumpano: Figure 26; col 19, ln 34 – col 20, ln 2) to transmit the at least one pressure value to the at least one additional vehicle system (Zumpano: col 13, ln 63-65).

Zumpano does not expressly teach that the pressure sensors detect an impact based on adiabatic pressure increase. Dirmeyer teaches using pressure sensors which detect adiabatic pressure increases to detect side impact *to a vehicle* (Dirmeyer: abstract, col 4, ln 60-62). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Zumpano to include the pressure sensors based on adiabatic pressure increases of Dirmeyer because these sensors will ensure that only serious accidents will cause the passenger protection system to tripped (Dirmeyer: col 4, ln 1-5).

With respect to **claim 9**, Zumpano further teaches the at least one vehicle system is configured to control its function as a function of the at least one pressure value (Zumpano: col 14, ln 1-12).

With respect to **claim 10**, Zumpano further teaches the at least one pressure value is a differential pressure value (Zumpano: col 12, ln 59-67).

8. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Zumpano (US Patent 6,513,829) in view of Dirmeyer et al. (US Patent 5,748,075) (hereinafter Dirmeyer) and further in view of Bohner et al. (US Patent 6,269,903) (hereinafter "Bohner"). Zumpano and Dirmeyer teach all limitations of parent claim 6 as shown above, but do not expressly teach plausibility checking. Bohner teaches plausibility checking on pressure sensor values (Bohner: col 8, ln 1-3). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Zumpano to include the plausibility checking of Bohner because this will ensure proper functioning of the pressure sensors (Bohner: col 7, ln 61-63) and ensure that the system is functioning during emergency situations (Bohner: col 2, ln 5-7).

Response to Arguments

9. Applicant's arguments filed September 17, 2008 have been fully considered but they are not persuasive.

Applicant argues in the second paragraph of page 4 of remarks filed September 17, 2008 that Zumpano does not teach "at least two pressure sensors each detecting an impact to a vehicle;" however, Applicant's arguments are not well taken. Applicant argues that Zumpano teaches detecting pressure "inside a plurality of internally disposed chambers within each of the inflatable members" (Zumpano, col 5, ln 24-26). However Applicant further quotes Zumpano in col 5, ln 46-55, which states in part "at least one of a plurality of impact sensors [that is] located on the vehicle and connected to the processor [and] communicates in micro-seconds the occurrence of an impact of sufficient predetermined force to possibly cause injury to the occupant within the passenger compartment." These impact sensors detect a pressure value representing an impact to a vehicle as stated in the above passage and further described in Zumpano at col 13, ln 5-10. Therefore Zumpano teaches at least two pressure sensors each detecting an impact to a vehicle. Further, if the pressure sensors represent the pressure sensors in the claim limitations instead of the impact sensors, they still fulfill the limitation of detecting an impact to a vehicle as the detection of a pressure within the chambers of the inflatable members is still the detection of an impact to the vehicle. The inflatable members are a part of the vehicle and thus when the pressure within the inflatable member is impacted, the vehicle by default also impacted. Even if an impact is within the vehicle as the result of the movement of an occupant of the vehicle, it is still an impact to the vehicle as the occupant is impacting the inflatable member of the vehicle. Further, even if the argument is made the Zumpano does not teach this

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limitation, Dirmeyer teaches pressure sensors that sense an impact to a vehicle as supported by Dirmeyer at the abstract and col 4, In 60-62, Applicant further admits that Dirmeyer "may refer to pressure sensors that sense an impact to a vehicle" in the second paragraph of page 4 of his arguments.

Applicant argues that Zumpano does not teach "wherein the processor is connectable to at least one restraining system wherein the processor is connected to at least one vehicle system besides said at least two pressure sensors and said at least one restraining system to transmit the at least one pressure value to the at least one additional vehicle system;" however, Applicant's arguments are not well taken. Initially the embodiment illustrated in Figure 29 of Zumpano illustrates a restraining system that includes an inflatable member which is connected to the processor therefore meeting the limitation "wherein the processor is connectable to at least one restraining system." Figures 26 and 27 of Zumpano illustrate an embodiment wherein the restraining system does not include inflatable members. The inflatable members are connected to the vehicle and processor and *not* to the restraining system. As mentioned before the pressure value is transmitted to the inflation system (Zumpano: col 13, In 63-67). These meet the limitations "wherein the processor is connected to at least one vehicle system besides said at least two pressure sensors and said at least one restraining system to transmit the at least one pressure value to the at least one additional vehicle system."

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rosenheimer (US PGPub 2003/0045781) teaches a device for processing signals for medical sensors. Pressure sensor signals are sent to a processor and then further sent to a display ([0042], [0045]). Pressure sensor signals are further checked for plausibility ([0033]).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JANET L. SUGLO whose telephone number is (571)272-8584. The examiner can normally be reached on M-Th from 7:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eliseo Ramos-Feliciano can be reached on 571-272-7925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JANET L SUGLO/
Examiner, Art Unit 2857